

## Identification of Emerging Technologies

## Source Category: Aerospace Assembly and Component Coating Operations

Pollutant: VOC, ROC, HAP

Description of Emerging Technology	Status	Source	Comments
Dip Coating, Add-on Control On-Demand Afterburner 2000 cfm from dip tank, oven, mechanical separator and other emission sources 96 % destruction efficiency 97.8 % collection efficiency reduces emissions 3.4 tons/year capital cost \$35,000; natural gas cost \$22,400; cost effectiveness \$4.32 per pounds of VOC also reduces nitrogen oxides and carbon monoxide	in place since 5/5/94	Republic Fastener Mfg. 1300 Rancho Conejo Blvd. Newbury Park, CA 91320  Ventura County APCD Stan Cowen (805) 327-5773 PTO 1412	variance from fastener installation, solid film lubricant limit of 250 g/L ROC
Spray Booth, Aerospace Coating, Add-On Control Carbon adsorption and spray guns with at least 65 % transfer efficiency 90% control efficiency 414 pounds per day 90 % efficiency limit	CAPCOA SCAQMD BACT 10/29/90	Northrop Aircraft B-2 Division Palmdale, CA aircraft coating spray booth  SCAQMD Ravi Bhatia (909) 396-2571	
Spray Booth, Aerospace Coating, Add-on Control Carbon adsorber panels over exhaust air vent 90 % control expected uses 2 gallons per day of coatings and solvent	CAPCOA SCAQMD BACT 5/3/90	Northrop Aircraft Division aircraft coating spray booth hanger  SCAQMD Ravi Bhatia (909) 396-2571	

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Description of Emerging Technology	Status	Source	Comments
Spray Booth, Coating of Aerospace Parts Uncontrolled VOC Emissions <= 74 pounds per day (descending order of efficiency): <ul style="list-style-type: none"> <li>▶ coating with lower solvent content &amp; higher transfer efficiency than required by applicable rules, and emissions vented to afterburner or carbon adsorber &gt;= 90 % overall efficiency</li> <li>▶ emissions vented to afterburner or carbon adsorber &gt;= 90 % overall efficiency</li> <li>▶ coating with lower solvent content <b>and</b> higher transfer efficiency than required by applicable rules; &gt;= 65 % transfer efficiency</li> <li>▶ coating with lower solvent content <b>or</b> higher transfer efficiency than required by applicable rules; &gt;= 65 % transfer efficiency</li> </ul>	SCAQMD BACT Technologically Feasible, Requires Economic Analysis 9/28/90	SCAQMD Anthony Oshinuga	
Spray Booth, Coating of Aerospace Parts Uncontrolled VOC Emissions >= 74 pounds per day (descending order of efficiency): <ul style="list-style-type: none"> <li>▶ coating with lower solvent content &amp; higher transfer efficiency than required by applicable rules, and emissions vented to afterburner or carbon adsorber &gt;= 90 % overall efficiency</li> </ul>	SCAQMD BACT Achieved in Practice or Contained in EPA Approved SIP, No Economic Analysis 9/28/90	SCAQMD Anthony Oshinuga	
Spray Booth, Coating of Aerospace Parts Uncontrolled VOC Emissions <= 74 pounds per day (descending order of efficiency): <ul style="list-style-type: none"> <li>▶ coating with lower solvent content &amp; higher transfer efficiency than required by applicable rules, and emissions vented to afterburner or carbon adsorber &gt;= 90 % overall efficiency</li> <li>▶ emissions vented to afterburner or carbon adsorber &gt;= 90 % overall efficiency</li> <li>▶ coating with lower solvent content <b>and</b> higher transfer efficiency than required by applicable rules; &gt;= 65 % transfer efficiency</li> <li>▶ coating with lower solvent content <b>or</b> higher transfer efficiency than required by applicable rules; &gt;= 65 % transfer efficiency</li> </ul>	SCAQMD BACT For Small Business, Requires Economic Analysis 9/28/90	SCAQMD Anthony Oshinuga	
Spray Booth, Open Spraying, Add-on Control Spray Booth vented to a Carbon adsorber or afterburner (>= 0.3 second retention time at 1400°F)	SCAQMD BACT Technological Feasible; Requires Economic Analysis 9/6/89	SCAQMD Anthony Oshinuga	

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Spray Booth, Open Spraying, Add-on Control Spray Booth vented to a Carbon adsorber or afterburner ( $\geq 0.3$ second retention time at 1400°F)	SCAQMD BACT for Small Business; Requires economic analysis 9/6/89	SCAQMD Anthony Oshinuga	
Spray Booth, Add-On Control (36,000 square feet hanger-sized spray booth for aircraft up to cargo-sized EC-18) Carbon adsorption filterbank with flame- ionization detector to determine breakthrough 95 % adsorption efficiency 90 % capture rate assumed coating limit 30 gallons per day; 5229 gallons per year	CAPCOA KCAPCD BACT 5/7/93	Edwards Air Force Base aircraft spray booth  KCAPCD Tom Paxson (805) 861-2593	
Spray Booth, Add-on Control Carbon adsorption emission control from spray booth, ovens, and 575 gallon epoxy dip tank 98% estimated control	CAPCOA SCAQMD BACT 1/8/87	Airesearch Company  SCAQMD Stacey Ebner (909) 396-2504	
Spray Booth with dry filters and HVLP coating applicator 15 hp electric compressor for HVLP applicator used to coat aerospace parts in a JBI model OWSBT-44-5B paint spray booth (44' L x 16' W x 16' H) with dry filters and 10 hp exhaust fan lowest available VOC content which meets military specification 20.9 pounds per day	CAPCOA SJUAPCD LAER 1/2/97	California Air National Guard Fresno	
Spray Booth, Add-on Control and Use of low-VOC coating operation limit 2.5 gallons per day; emissions 19.9 pounds per day EPA RBLC: Add-on Control Bleeker Brothers Model No. AT-PL-38 Paint Spray Booth time of operation: 8 hours per day throughput capacity fan exhaust <18,000 CFM & 2.5 gallons per day of coating	CAPCOA KCAPCD BACT 10/23/91	Tracor Flight System aircraft coating  KCAPCD Tom Paxson (805) 861-2593	

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Spray Booth, Adhesive VOC, Add-on Control Carbon adsorber Bleeker Bros. Adhesive Spray Booth throughput capacity: 9815 CFM 3.4 tons per year (methylene chloride)	U.S. EPA RBLC 6/18/93	Heath Tecna Aerospace Co. 7650/7837 S 196th Street Kent, WA 98032  Puget Sound Air Pollution Control Agency, WA Claude Williams (206) 689-4066	
Painting and Depainting Capture and Control of Inorganic HAP	U.S. EPA MACT	Inorganic HAP Control for Aerospace Coating and Depainting	
Coating Operation & Curing Add-on Control no limit; estimated emission rate 8 pounds per day	CAPCOA SCAQMD BACT 11/24/86	General Dynamics Coporation coating operation and curing oven  SCAQMD Stacey Ebner (909) 396-2504	
Maskant Coating, Water-based Dip maskant coating operation limited to 430 gallons per day EPA RBLC: Waterbased maskant with maximum VOC content 150 g/L	CAPCOA SDCAPCD BACT 1/15/91	Caspian maskant dip coating operation  SDCAPCD Stan Romelczyk (619) 694-3323	
Use of low-VOC coating 3.5 pounds per gallon with HVLP application equipment, and Hercules GW/R enclosed gun cleaner operation limit 11 gallons per day and 1600 gallons per year; 38.5 pounds per day	CAPCOA BACT SJUAPCD BACT 11/6/95	T.B.M., Inc. aircraft refinishing operation  SJVUAPCD Seyed Sadredin (209) 497-1000	

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